

What is claimed is:

CLAIMS

1. A method comprising the steps of:
receiving a Session Initiation Protocol (SIP) message containing VPN information from
an initiating application; and
5 registering the VPN information on a communication network.

2. The method of claim 1, wherein the communication network is a Multi-Protocol Label
Switching (MPLS) network.

10 3. The method of claim 1, wherein the step of registering uses Multi-Protocol Border
Gateway Protocol (MP-BGP) to distribute routing information associated with the initiating
application to the communication network.

15 4. The method of claim 1, wherein the step of registering causes the communication
network to establish network VPN tunnels.

5. The method of claim 1, further comprising receiving a SIP message from an initiating
application containing a request for network VPN resources.

20 6. The method of claim 5, wherein the request for network VPN resources comprises
VPN information including requested bandwidth, duration, and quality of service.

25 7. The method of claim 5, further comprising signaling the request to the communication
network.

8. The method of claim 7, wherein signaling the request to the communication network
comprises instructing the communication network to reserve network VPN resources on a
network VPN tunnel according to the VPN information.

30 9. The method of claim 5, further comprising forwarding a SIP invite message toward a
destination application.

10. Software for providing network VPN services on demand, comprising:
program logic configured to register application-VPN-ID information associated with a
first application on a communication network; and

5 program logic configured to interface with the communication network to obtain network
VPN resources associated with the application-VPN-ID information upon receipt of a request for
access to the network VPN resources from the first application.

11. The software of claim 10, further comprising program logic for maintaining a
10 mapping between the first application and the network VPN resources provided to the first
application.

12. The software of claim 10, further comprising program logic configured to receive
session initiation protocol (SIP) signaling from a SIP agent associated with the first application
15 and to generate SIP signaling directed to a second application.

13. A Service – Virtual Private Network (S-VPN) gateway, comprising:
a Session Initiation Protocol (SIP) server configured to handle SIP signaling to enable a
first application to register for network VPN resources using said SIP signaling.

20 14. The S-VPN gateway of claim 13, wherein the SIP server is further configured to
handle SIP signaling to enable the first application to request access to said network VPN
services.

25 15. The S-VPN gateway of claim 14, further comprising a media signaling gateway
configured to interface with at least one network device configured to participate in providing
said network VPN services.

30 16. The S-VPN gateway of claim 14, further comprising a services module configured to
provide authentication, authorization, and accounting services on the communication network.

17. The S-VPN gateway of claim 13, further comprising an application-VPN database configured to store information associating applications with network VPN resources on the communication network.